

ANISEIKONIA- EASY TO UNDERSTAND

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Author's contributions

This work was carried out in collaboration between both authors. Author PHC had wrote the Introduction and Conclusion part of this article. Author BHS had managed the abstract and literature review along with the formatting of the article. Both authors had read and approved the final manuscript.

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ABSTRACT:

This article includes Introduction, Clinical Features, Determination, and Management of Aniseikonia including Knapp's Law.

INTRODUCTION:

It is a condition where the different ocular image size is present between two eyes. When there is a difference of 0.75% or higher between two image size, then it is considered as the considerable amount of Aniseikonia.

It is of two types:

Static Aniseikonia

Dynamic Aniseikonia

When only two retinal image size difference is present, then it is called Static Aniseikonia. During considerable amount of Anisometropia, when the patient is wearing a spectacle correction and when a patient is asked to look at different

29 gaze, At that time, at different gaze, different amount of phoria is induced. The
30 amount of induced phoria is assessed in Dynamic Aniseikonia.

31 **KNAPP'S LAW :**

32 It is applicable only in cases of Axial Ametropia. But it is also proved that this
33 law is not useful.

34 According to Knapp's,

35 Axial ametropic eye's retinal image size is equal to the emmetropic eye when
36 proper corrected spectacle lens is placed on the anterior focal point of the Axial
37 Ametropic eye.

38

39 **CLINICAL FEATURES:**

40 Symptoms include Asthenopia, Headaches, Photophobia, Reading Difficulty,
41 Nausea, Motility difficulty, Nervousness, Dizziness, General Fatigue, Distortion
42 of space.

43 Aniseikonia is not always associated with refractive error. In some cases, there
44 is no refractive error difference between two eyes, but unequal retinal image
45 size is present. In this case, different corneal power is present between the two
46 eyes which creates Anisometropia, which is very difficult to correct.

47 **DETERMINATION OF ANISEIKONIA:**

48 The following tests can determine aniseikonia:

- 49 A. Alternate Cover Test
- 50 B. Turville Test
- 51 C. Maddox Rod and Two Point Light Source
- 52 D. The New Aniseikonia Test

53

- 54 A. Alternate Cover Test

55 Here the horizontal target is used to perform the test. A patient is instructed
56 to look at the target. Here, occlude should not be placed on the eye for more
57 than 1 sec.

- 58 B. Turville Test

59 Vertical Aniseikonia is diagnosed in this test.

60 C. Maddox Rod and Two Point Light Source

61 Here two light sources are placed at 60cm distance and the difference
62 between two light source is 20 cm. Maddox Rod is placed at 180-degree axis
63 on one eye. Patient has to compare Relative Separation of the lights with
64 Relative Separation of the Luminous Streak.

65 **MANAGEMENT:**

- 66 I. Proper Retinoscopic refraction along with Cycloplegic Refraction.
- 67 II. Size lens is being prescribed.
68 Size lens is a lens in which vergence is zero, and only magnification
69 occurs. This lens is prescribed to the eye where Retinal Minification is
70 present as compared to the other eye.
- 71 III. Iseikonic lenses should be prescribed.
- 72 IV. Vertex distance is also an essential factor for Aniseikonia. The change
73 in vertex distance achieves magnification.
- 74 V. The base curve is also an essential factor. To change base curve,
75 magnification is needed.
- 76 VI. Anti Reflection Coating and Lens Edge Coating is also an essential
77 factor for Aniseikonia.

78 **CONCLUSION:**

79 Aniseikonia is a binocular phenomenon. Complain of patients with Aniseikonia
80 are diplopia, headache.it can be treated with the help of SIZE Lens. Before
81 prescribing this size lens, a refractive error should be corrected. Size lens should
82 be specified in an eye where a smaller image is perceived. This size lens will do
83 magnification only, not any type of vergence.

84 **CONSENT :**

85 It is not applicable.

86 **ETHICAL APPROVAL:**

87 It is not applicable.

88 **REFERENCES:**

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